

Declassification Review by NSA

65376

25X1

R 150243Z JUN 68
FM NPIC WASHDC
TO RUEOJFA/DIA
BT

1968 JUN 15 03 08Z

S E C R E T [REDACTED] CITE NPIC 4025

ATTN: [REDACTED]

SUBJ: EVALUATION OF GIANT SCALE MISSION S019

1. QUALITY SUMMARY: MISSION S019, FLOWN ON 22 MAY 1963 PROVIDES BETTER IMAGE QUALITY IN AREAS OF INTEREST COMPARED TO PREVIOUS GIANT SCALE MISSIONS. THIRTY-FIVE PERCENT OF THE MISSION IS OVER WATER. THE BEST GROUND RESOLUTIONS WERE OBSERVED AT A VEHICLE ALTITUDE OF 51,000 FEET. THE INTERPRETATION SUITABILITY IS CONSIDERED GENERALLY GOOD. GROUND RESOLUTION FIGURES ARE EMPIRICAL ESTIMATES BASED ON EVALUATIONS OF SIMILAR SENSORS AND IMPLY A BAR AND A SPACE. THUS, A FIGURE OF [REDACTED] FOOT DISTANCE OBJECT COULD BE DETECTED. AS USUAL, THE BEST GROUND RESOLUTIONS LOCATED NEAR NADIR IN CLEAR AREAS AND THE ORIGINAL NEGATIVES WERE USED TO DETERMINE THE FOLLOWING RESOLUTIONS:

- A. RIGHT OPERATIONAL OBJECTIVE CAMERA [REDACTED]
B. LEFT OPERATIONAL OBJECTIVE CAMERA [REDACTED]

PAGE 2 RUEADJU 56 S E C R E T [REDACTED]

C. RIGHT TECHNICAL OBJECTIVE CAMERA [REDACTED]

D. LEFT TECHNICAL OBJECTIVE CAMERA [REDACTED]

PORTIONS OF THIS MISSION WERE FLOWN AT 51K. THE OPERATIONAL OBJECTIVE CAMERAS PROVIDED THE BETTER IMAGERY AT LOW ALTITUDES; HOWEVER, THE TECHNICAL OBJECTIVE CAMERAS PROVIDED [REDACTED] GROUND RESOLUTIONS IN ISOLATED INSTANCES AT OPERATIONAL ALTITUDES AND [REDACTED] AT 51K.
2. CLOUDS OBSCURE OR DEGRADE 35 PERCENT OF THE ENTIRE MISSION.
3. THE MATERIAL WAS PROCESSED AT [REDACTED]. THE MISSION EMPLOYED THE USUAL SENSORS. THE ONLY MATERIALS EVALUATED ARE THE ORIGINAL NEGATIVES FROM THE TECHNICAL AND OPERATIONAL OBJECTIVE CAMERAS. THE TERRAIN OBJECTIVE CAMERA MATERIAL WAS USED TO DETERMINE THE AREAS OF 80 PERCENT CLOUD FREE PHOTOGRAPHY.

4. ANALYSIS OF THE TECHNICAL OBJECTIVE MATERIAL:

A. COMMENTS APPLICABLE TO BOTH CAMERAS:

- (1) APPROXIMATELY 20 PERCENT OF THE PHOTOGRAPHY WAS ACQUIRED ABOVE 30 DEGREES OBLIQUITY.
(2) MINUS DENSITY LINES ASSOCIATED WITH THE PLATEN CONFIGURATION ARE VISIBLE IN ALL FRAMES.
(3) TWO PLUS DENSITY STREAKS ARE PRESENT THROUGHOUT THE MISSION; ONE IS LOCATED 2.0 INCHES FROM THE TITLED EDGE

ADJ	OFFICE	FI
1	FILE	
2	CABLE SEC.	
	PPED/25X1	
3	SECUR.	
	TSSG	
	PSG/OS	25X1
	RRD	25X1
	EEPRO	
	AID	
	LEG	
	PROD	25X1
	SOI	25X1
	WEST	
	EAST	25X1
	M&S	
	PGM	
	IAS	
	DIA-XX4	
	SPAD	
	DIA-AP	25X1
	CMX	

ADVANCE C
SANITIZED
WITH TEXT

25X1

PAGE 3 RUEADJU 56 S E C R E T [REDACTED]

OF THE FILM AND THE OTHER IS 2.0 INCHES FROM THE UNTITLED EDGE OF THE FILM.

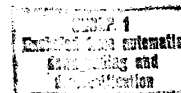
(4) STATIC INDUCED FOG IS DETECTABLE ALONG BOTH EDGES OF THE NEGATIVE.

(5) BANDING, APPARENTLY INDUCED BY VIBRATION, IS PRESENT THROUGHOUT THE MISSION.

(6) THE IMAGERY APPEARS SLIGHTLY OUT-OF-FOCUS THROUGHOUT PORTIONS OF THE MISSION.

(7) EITHER SMEAR OR DOUBLE IMAGERY IS DETECTABLE ON THE HIGH OBLIQUE FRAMES.

25X1



2

(8) THE MATERIAL APPEARS SLIGHTLY DENSE AND THE CONTRAST IS LOW.

B. LEFT CAMERA (A-L). SN/64-21

(1) RANDOM MINUS DENSITY STREAKS PARALLEL TO THE MAJOR AXIS ARE PRESENT THROUGHOUT THE MISSION.

(2) RANDOM IRREGULAR SHAPED PLUS DENSITY FOG AREAS, PROBABLY PROCESSING INDUCED, ARE PRESENT INTERMITTENTLY THROUGHOUT THE SECOND HALF OF THE MISSION.

(3) SMEAR OR DOUBLE IMAGERY IS DETECTABLE IN SOME VERTICAL FRAMES. (EXAMPLE: FRAME 1058 (AL)). THE MRS

PAGE 4 RUEADJU 56 S E C R E T DOES NOT RECORD DATA FOR THESE FRAMES AND THEREFORE THE VEHICLE ATTITUDE IS UNKNOWN.

25X1

(4) CAMERA OFF/ONS OCCUR BETWEEN FRAMES 165/166, 284/285 AND 1135/1136.

(5) THE LAST TITLED FRAME IS 1574.

C. RIGHT CAMERA (AR), S/N 64-22:

(1) RANDOM MINUS DENSITY STREAKS, PARALLEL TO THE MAJOR AXIS, ARE PRESENT THROUGHOUT THE MISSION.

(2) THE CAMERA DATA CHAMBER IS DENSE AND HARD TO READ.

(3) CAMERA OFF/ONS OCCUR BETWEEN FRAMES 183/184, 273/274, AND 1149/1150.

(4) THE LAST TITLED FRAME IS 1601.

5. ANALYSIS OF OPERATIONAL OBJECTIVE CAMERA MATERIAL:

A. COMMENTS APPLICABLE TO BOTH CAMERAS

(1) THE DENSITY AND CONTRAST OF THE NEGATIVES APPEAR SATISFACTORY.

(2) THE FIRST 0.5 INCH OF SCAN FOR ALL FRAMES IS DEGRADED AND APPEARS OUT-OF-FOCUS.

(3) THE LAST FRAME OF EACH CAMERA OPERATION DISPLAYS FOGGED PATTERNS NORMALLY ASSOCIATED WITH CAMERA OFF.

PAGE 5 RUEADJU 56 S E C R E T

25X1

(4) THE TIME TRACK IS SHIFTED AS ON PREVIOUS MISSIONS. IT BEGINS 0.55 INCH AFTER THE START OF SCAN AND EXTENDS 0.75 INCH BEYOND END OF SCAN.

(5) FOG, ASSOCIATED WITH THE ILLUMINATION OF THE DATA CHAMBER ENCROACHES 0.25 INCH INTO THE IMAGERY ON BOTH SIDES OF THE DATA CHAMBER.

B. LEFT OPERATIONAL OBJECTIVE CAMERA (CL), S/N 4029:

(1) THE EVENTS COUNTER AND THE TITLED FRAME NUMBER CORRESPOND THROUGHOUT.

(2) THE TIME TRACK IS NOT IMAGED ON FRAMES 01 TO 10 AND THE FIRST 7.6 INCHES OF FRAME 11. IT IS ALSO MISSING ON THE FIRST 5.4 INCHES OF FRAME 380.

(3) PROCESSING SPLICES ARE PRESENT BETWEEN FRAMES 522/523 AND 1044/1045.

(4) CAMERA OFF/ONS ARE PRESENT BETWEEN FRAMES 379/380 AND 1126/1127.

(5) FRAMES 1127 TO 1149 APPEAR TO BE POSTFLIGHT.

(6) LAST TITLED FRAME: 1149

C. RIGHT OPERATIONAL OBJECTIVE CAMERA (CR), S/N 4030:

(1) THE TIME TRACK IS NOT IMAGED ON FRAMES 2 THROUGH 9; HOWEVER, IT IS OPERATIONAL THROUGHOUT THE REMAINDER OF THE MISSION.

(2) THERE IS A MINUS DENSITY STREAK, ALIGNED ALONG THE

3

PAGE 6 RUEADJU 56 S E C R E T

25X1

MAJOR AXIS OF THE FILM, 0.1 INCH FROM THE NON-TITLED EDGE, THROUGHOUT THE MISSION.

(3) THERE IS NO BIAS BETWEEN THE EVENTS COUNTER AND THE TITLED FRAME NUMBER THROUGH THE FIRST 1127 FRAMES. FRAME 1128 WAS TITLED TWICE AND THEREFORE THE COUNTER HAS A MINUS ONE BIAS FOR FRAMES 1128 TO 1137.

(4) THE LAST NINE FRAMES APPEAR TO BE POSTFLIGHT.

(5) PROCESSING SPLICES ARE PRESENT BETWEEN FRAMES 522/523 AND 1044/1045. AN ULTRASONIC SPLICE IS LOCATED IN FRAME 265.

(6) CAMERA OFF/ONS ARE PRESENT BETWEEN FRAMES 380/381 AND 1127/1128.

(7) LAST TITLED FRAME: 1137

6. MISSION RECORDER SYSTEM (MRS) CORRELATION:

A. FOR PROCEDURE SEE THE EVALUATION REPORT FOR S018.

B. EXAMPLE: AT THE BEGINNING OF THE MISSION A FRAME (38) OF THE RIGHT TECHNICAL OBJECTIVE CAMERA WOULD BE CORRELATED WITHIN A FOUR LINE REGION (PLUS OR MINUS TWO) OF MRS DATA.

		NUMBER OF MRS LINES PER FRAME							
TERRAIN		R-00C		L-00C		R-TEOC		L-TEOC	
FRAME	LINES	FRAME	LINES	FRAME	LINES	FRAME	LINES	FRAME	LINES
147	1	163	2	163	2	38	4	23	5

GP-1

S E C R E T

END OF MSG

25X1